



Shortlist: Lothian Broadband by Lothian Broadband

The Challenge

In 2005 the rural area of Garvald & Morham (c. 50sqKm, pop. 570, c. 330 residences) had no broadband. Current service is poor and does not reach all premises. Businesses complain and see themselves forced to leave the area. Children cannot do homework. Services such as iPlayer cannot be enjoyed. People continue to commute unnecessarily.

A good broadband service can and will facilitate and enhance community capacity, social cohesion, cultural and educational activity and economic growth as well as contributing to environmental protection and resource conservation.

Our challenge was and is to meet this demand by providing a network capable of delivering "next generation" speeds and that will be flexible and scalable enough to allow for geographic extension as demand may dictate. It must also be future-proof in terms of the potential to meet inevitable speed increase requirements well into the next decade and beyond. Early solutions resulted in further challenges that were met successfully.

The Solution

In 2005 we successfully obtained grants, mainly from LEADER, totalling £25,000. This paid for a 2.4GHz mesh box network running from a 2 Mbps Aramiska satellite backhaul. Aramiska failed and we rapidly deployed a wind/solar powered link to an 8 Mbps ADSL connection at East Linton, 7Km distant. This was later doubled to two bonded ADSL lines. Interference from other equipment operating on 2.4GHz caused problems. Increasing use indicated a growing need to upgrade bandwidth.

The only solution was to join forces with neighbouring villages. Agreements were reached with East Linton (pop. 1,740) and Gifford (pop. 808). Market surveys were conducted, appropriate technologies and equipment were identified, and a comprehensive business plan was devised to extend the field of operations to cover approx. 150 sqKms. An application to LEADER was successful and a 90% grant of £355,000 was awarded, partly matched by a donation from Garvald and Morham Community Council.

The Achievement

The principal achievement is that we have established the means and organisation that will allow this project to proceed. Lothian Broadband Limited is a community run coop, set up to manage, the Garvald & Morham project. It now operates independently of the Community Council but with council representation on the Board. Other community councils are showing interest and have approached us.

Parts of the existing network have already been upgraded to 5.8GHz. Backhaul is still through the two bonded lines. Users on this frequency typically have a service at consistent speeds of 9 Mbps, significantly in excess of the national average. Ofcom data shows that averages in East Lothian are well below this with no superfast access and 11.4% running below 2Mbps.

There is a 32% "no take up" figure which may hide potential users who have no access. We are about to build a relay mast on a dominant hill. This will link to a fibre backhaul in Edinburgh. We have the software to manage all aspects of this network. Because of our experience over the past six years we are confident that we can build on our achievements to provide a high quality, fast network capable of servicing the needs of East Lothian residents, businesses and other interested groups.